

**Sõidukite ja jalakäijate  
liiklemispiirkonnas paiknevad  
restkaevude kaaned ja kontrollkaevude  
kaaned. Konstruktsiooninõuded,  
tüübikatsetus, märgistus,  
kvaliteedikontroll**

Gully tops and manhole tops for vehicular and pedestrian areas - Design requirements, type testing, marking, quality control

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 124:1999 sisaldab Euroopa standardi EN 124:1994 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 124:1999 consists of the English text of the European standard EN 124:1994.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b></p> <p>Käesolev standard on kohaldatav kuni 1000 mm läbimõõduga vabalt avanevate restkaevude ja kontrollkaevude kaante paigaldamiseks sõidukite ja jalakäijate liiklemispiirkonnas. Standard ei ole kohaldatav kontrollimiskastidele ega põranda- või katuseetappidele hoonetes, mis on määratletud prEN 1253-s. Standardi eesmärk on kehtestada määratlused, liigitused, materjalid, konstruktsiooni- ja testimisnõuded, märgistus ning kvaliteedikontroll restkaevude kaantele ja kontrollkaevude kaantele.</p>	<p><b>Scope:</b></p>
--	----------------------

**ICS** 93.080.30

**Võtmesõnad:** kanalisatsioon, kvaliteedikontroll, liigitused, liiklusteed, märgistus, restkaevude luugid, sulgemisseadmed, tehnilised andmed, testimine, varustuse tehnilised andmed, vee äravool

Descriptors: Sewerage system, gully top, cover, waste water engineering.

**English version**

**Gully tops and manhole tops for vehicular  
and pedestrian areas**

Design requirements, type testing, marking, quality control

Dispositifs de couronnement et de fermeture pour les zones de circulation utilisées par les piétons et les véhicules; principes de construction, essais types, marquage, contrôle de qualité

Aufsätze und Abdeckungen für Verkehrsflächen; Baugrundsätze, Prüfungen, Kennzeichnung, Güteüberwachung

This European Standard was approved by CEN on 1994-06-06.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Contents

### Foreword

1	Scope
2	Normative references
3	Definitions
4	Classification
5	Place of installation
6	Materials
6.1	General
6.1.1	Manhole tops and gully tops
6.1.2	Gratings
6.1.3	Other materials
6.1.4	Cover fillings
6.2	Production, quality and testing
7	Design requirements
7.1	General
7.2	Vents in covers for manhole tops
7.3	Clear openings of manhole tops for man entry
7.4	Depth of insertion
7.5	Total clearance
7.6	Seatings
7.7	Edge and contact surfaces protection for manhole tops of steel reinforced concrete
7.8	Securing of the cover/grating within the frame
7.9	Slot dimensions
7.9.1	Straight slots
7.9.1.1	Classes A 15 and B 125
7.9.1.2	Classes C 250 to F 900
7.9.2	Slots other than straight
7.10	Dirt pans and dirt buckets
7.11	Positioning of covers and gratings
7.12	Surface condition
7.13	Loosening and opening of covers and gratings
7.14	Sealed manhole tops
7.15	Frame bearing area
7.16	Frame depth
7.17	Opening angle of hinged covers/gratings
7.18	Recessed covers (filled covers)
8	Testing
8.1	Test loads
8.2	Testing apparatus
8.2.1	Testing machine
8.2.2	Test blocks
8.2.3	Preparation for the test
8.2.4	Type testing
8.3	Testing procedure
8.3.1	Measurement of permanent set of the cover or grating after the application of 2/3 of the test load
8.3.2	Application of the test load
8.4	Measurement control
8.4.1	General inspection
8.4.2	Vents
8.4.3	Clear opening
8.4.4	Depth of insertion
8.4.5	Total clearance

- 8.4.6 Seatings
- 8.4.7 Edge protection
- 8.4.8 Securing of cover and/or grating within its frame
- 8.4.9 Slot dimensions
- 8.4.9.1 Straight slots
- 8.4.9.2 Slots other than straight
- 8.4.10 Dirt buckets, dirt pans
- 8.4.11 Positioning
- 8.4.12 Surface condition
- 8.4.13 Loosening and opening of covers and gratings
- 8.4.14 Frame depth
- 8.4.15 Opening angle
- 8.4.16 Permanent set
- 9 Marking
- 10 Quality control
- 10.1 General
- 10.2 Quality control done by the manufacturer
- 10.2.1 Factories certified to EN 29002
- 10.2.2 Factories not certified to EN 29002
- 10.3 Third party control
- 10.3.1 Procedure of the 3rd party control
- 10.3.1.1 Factories certified to EN 29002
- 10.3.1.2 Factories not to certified to EN 29002
- 10.3.2 Report by the third party
- 10.3.3 Nonconforming units
- 11 Installation

## Annex

- A (normative) Scheme of internal quality control

## Tables

- A.1 Receiving inspection and testing
- A.2 Process control
- A.3 Final inspection and testing of products
- A.4 Rolled steel
- A.5 Reinforced concrete
- A.6 Inspection, measuring and test equipment – Handling, storage, packaging and delivery – Control of nonconforming product

## Foreword

Technical Committee CEN/TC 77 'Drainage equipment' was founded in 1973, and in the beginning it was concerned with general drainage equipment. As the tasks which had to be accomplished were revealed as being too extensive, the Committee was divided into Working Groups 'Drainage equipment inside buildings' (WG 1) and 'Drainage equipment outside buildings' (WG 2), and, finally, in 1980 two separate Technical Committees were created, i.e. CEN/TC 77 'Drainage equipment (systems, design requirements, coordination) inside buildings' and CEN/TC 96 'Drainage equipment outside buildings'. In 1989, the two committees were combined again given a draft mandate of the EC and taking into account the New Approach; the committee's number is now CEN/TC 165.

For the first edition of EN 124 published in 1986, the committee left certain requirements for later consideration. Also, some other requirements (e.g. the selection of the class of the gully tops and manhole tops appropriate to the place of installation) could not be specified at that time.

In 1988, it was decided in CEN/TC 96 to revise the standard and to include specifications for quality control. This revised version which was adopted by TC 165 in 1993, but also at present the assignment of classes in relation to places of installation could only be given by a directive.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by December 1994 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## 1 Scope

This standard applies to gully tops and manhole tops with a clear opening up to and including 1000 mm, for installation within areas subjected to pedestrian and/or vehicular traffic. This standard does not apply to surface boxes nor to floor and roof gullies in buildings which are specified in prEN 1253.

The purpose of this standard is to establish definitions, classes, materials, design and testing requirements, marking and quality control of gully tops and manhole tops.

## 2 Normative references

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO 185	1988	Grey cast iron – Classification
ISO 1083	1987	Spheroidal graphite cast iron – Classification
ISO 630	1980	Structural steels
ISO 3755	1991	Cast carbon steels for general engineering purposes
ISO 1459	1973	Metallic coatings – Protection against corrosion by hot dip galvanizing – Guiding principles
ISO 1460	1992	Metallic coatings – Hot dip galvanized coatings on ferrous materials – Gravimetric determination of the mass per unit area
ISO 1461	1973	Metallic coatings – Hot dip galvanized coatings on fabricated ferrous products – Requirements
ISO 8062	1984	Castings – System of dimensional tolerances
Euronorm 80	1985	Reinforcing bars (not for prestressing); Technical delivery conditions
Euronorm 81	1969.03	Hot rolled flat round reinforcing steel; dimension, mass, tolerances

Euronorm 82	1979.02	Steel for the reinforcement of concrete with an improved bonding action; dimensions, mass, tolerances, general requirements
prEN 1253-1		Gullies for buildings – Part 1: Requirements
prEN 1253-2		Gullies for buildings – Part 2: Test methods
EN 29002	1987	Quality systems – Model for quality assurance in production and installation

### 3 Definitions

For the purposes of this standard the following definitions apply.

No.	Term	Definition
1	Gully	An assembly to receive surface water for discharge into a drainage system
2	Manhole	A chamber or access shaft to underground systems
3	Gully top	That part of a gully, consisting of a frame and grating and/or cover and which is placed on the gully pot at the place of installation
4	Manhole top	That part of a manhole consisting of a frame and a cover and/or a grating
5	Frame	The fixed part of a gully top or manhole top which receives and supports a grating and/or a cover
6	Grating	The movable part(s) of a manhole top or a gully top, which permits the passage of water through itself to the gully
7	Cover	The movable part(s) of a manhole top or a gully top which cover(s) the manhole or gully opening
8	Vent	An opening in the cover of a manhole top to provide ventilation
9	Dirt bucket	A removable component of a gully or a gully top which collects debris
10	Dirt pan	A removable component of a manhole or manhole top which collects debris
11	Seating	The surface on which the grating or the cover rests in the frame